

Applicant: Rauno Rantanen  
Application No.: 10/501,624  
Response to Office action mailed Aug. 29, 2006  
Response filed November 24, 2006

### Remarks

Claims 21, 22, 23, and 33 remain pending in the application. In the Office action dated Aug. 29, 2006, claim 21 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Tooker* (US 5,417,797) in view of *Reckziegel* (US 4,984,949) and *Lemke DE 37 14226A1*. And claim 21 *sic* [33] was rejected under 35 U.S.C. 103(a) as being unpatentable over *Tooker* in view of *Reckziegel*. Claims 22 and 23 stand allowed.

Allowed claim 23 has been amended to properly refer to “the at least one nozzle plate”.

Claims 21 and 33 have been amended to more clearly distinguished over apparatus for applying glues to book backs or covers by an amended preamble which breathes life and breath into the claims, limiting the claims to an apparatus in a paper or board machine for feeding a treating agent onto a continuous moving paper or board web, and further claiming the cylindrical surface in contact with the continuous moving paper or board web.

Support for amendment to the preamble is found in paragraph [0057] which indicates “treatment is carried out in a forming section” clearly the claimed coaters are comprehended as being used in a paper machine, which necessarily has a continuous moving web. Paragraph [0003] which indicates that “The moving surface can be formed of a web...” and “The web to be treated, in turn, can be a paper web, a board web....” The limitation “continuous moving paper or board web” is not a process limitation, but claims a type of web one which is continuous as opposed to the discontinuous book backs.

### Discussion of the applied references

*Tooker* is directed to book binding. The process described in this document is a periodic (discontinuous) process in the sense that the book blocks 10 do not form a continuous surface. The arrangement for applying adhesive to the spine of a book block described in this document is very complicated. The polyurethane adhesive (PUR) source 16 includes an outlet nozzle 18 (not a nozzle plate as claimed) for depositing PUR 20 upon an inclined trough 22 having a leading edge 22a positioned adjacent roller 12. On both sides of

the trough 22 there are side walls 100. Two temperature sensors 80 and 82 are used to determine when the volume of PUR 20 in trough 22 is low enough to require activation of PUR source 16, i.e. when to deliver additional PUR 20. This means that the PUR source 16 ejects PUR periodically, i.e. not continuously. The inclined trough 22 is thus not used to even out the flow of adhesive—it is on the contrary used as a kind of reservoir for the adhesive. *The leading edge 22a of the heated trough 20 is not in contact with the heated roller 12.* It is on the contrary at a certain distance from the roller 12 in order to affect metering of the adhesive to the roller surface (see e.g. col. 3, lines 12–16, and claim 1). Also the slope of the trough 20 can be regulated in order to affect metering of adhesive on the roller 12. This is contrary to the examiner's argument that *Tooker* shows an arrangement where the inclined surface rests on a cylindrical surface. Further, the examiner admits *Tooker* does not show a plurality of holes arranged to form downwards moving jets of treating agent, and further the examiner also has not shown a nozzle plate is inherently shown in *Tooker*.

*Reckziegel* is also directed to book binding. The document shows a nozzle head 11, 14 from which adhesive can be applied to the cover 1 of a book instead of to the spine of the book block 18. The adhesive can be applied on the cover in width exceeding the thickness of the spine of a book on both sides by at least 0.5 mm. The nozzle heads 11 and 14 show slit nozzles 11, 12 and 15 from which the adhesive is applied as stripes on the cover. *Reckziegel* does not show *a nozzle plate having portions forming a plurality of holes arranged to form downwards moving jets of treating agent.*

*Lemke* DE 37 14 226 is directed to a book binding machine. The machine has a conveyor for the blocks of pages and holds the spine edges uppermost. The conveyor feeds the blocks into a tool which trims the edges to form a flat surface. The trimmed book block then passes to a gluing station. The gluing station is provided with a sensor 22 which detects the precise height of the trim surface of the book block. The sensor transmits a signal which controls the height of the roller 20 applying glue so that a layer of adhesive of the correct thickness is applied to the book block. Thus *roll 20 is kept at a small distance from the book block* i.e. the roll 20 is not in contact with the book block (col. 3, lines 16–22) provided in English as translated by <http://babelfish.altavista.com/>:

The glue roller 20 is steered in such a way with the fact that it "floats" always over the back surface 18 of an arriving book block 12, whereby any elevator fluctuations become due to a

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play of the conveyer system 10 automatically by scanning device 22 and the electronic circuit 30 and the servodynes 32 balanced.

Further the process described in *Lemke* is a periodic (discontinuous) process as each book block passes the roll. As amended, claims 21, and 33 do not read on a series of book blocks which do not form a continuous moving paper or board web.

The combination of *Tooker* and *Reckziegel* which are directed to applying glue to book backs or book covers does not teach or suggest applicant's invention set forth in the amended claim 33 as there is no suggestion, nor expectation of success within the applied references for applying the technology of book assembly to that of coating a paper or board web. The combination of *Tooker*, *Reckziegel* and *Lemke* with respect to amended claim 21 presents the same problems, the references are to applying glue to book covers or book backs and do not provide a suggestion or motivation or expectation of success with respect to applicant's claimed coater.

In order to apply non-analogous art, the examiner must show a particular problem is present in the relevant prior art to which the non-analogous art provides a solution. A person skilled in the art would most certainly not consult patent publications relating to book binding when faced with finding a solution to applying treating agent on a continuous moving paper or board web in a paper or board machine, absent a technical problem identified in the prior art of continuous board and paper coating to which the art of book binding provides a solution. In other words, to use the bookbinding references, the examiner must find a problem identified in the prior art of continuous coating, and then show that the identified problem is dealt with within the book binding art, such that a person of ordinary skill in the art would be led to consult the book binding art. The person of ordinary skill in the art can be imagined in a room with all the relevant art hung on the wall but not everything in the world on the wall, and the examiner has failed to explain why book binding would be on the wall.

Hindsight must be avoided in combining references. The examiner is not free to pick and choose from the prior art based on applicant's disclosure as a blueprint.

Applicant believes that no new matter has been added by this amendment.

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Applicant submits that the claims, as amended, are in condition for allowance.  
Favorable action thereon is respectfully solicited.

Respectfully submitted,



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